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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/597,917

08/11/2006

Frederick Ian Wood

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7872

30565

7590

08/14/2009

WOODARD, EMHARDT, MORIARTY, MCNETT & HENRY LLP
111 MONUMENT CIRCLE, SUITE 3700
INDIANAPOLIS, IN 46204-5137

EXAMINER

CLEMENTE, ROBERT ARTHUR

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

08/14/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/597,917	Applicant(s) WOOD, FREDERICK IAN	
	Examiner ROBERT A. CLEMENTE	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4 and 7-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4 and 7-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20090630</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on June 30, 2009 has been entered.

Claim Rejections - 35 USC § 102

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by International Publication No. WO 99/20450 to Beck.

Beck teaches a method of forming a filter unit comprised of a filter element and an encircling peripheral encasement frame to which the filter element is sealed, as shown generally in figures 3 - 7. The filter unit (10) is shown in figures 1 and 2. The filter unit (10) includes a pleated filter element (12) and an encircling peripheral encasement frame (16). Based on the direction of flow shown by the arrow (24) in figure 2, the bottom surface of the filter element (12) can be considered a front face and the top surface can be considered a rear face. Figure 3 best shows the bounding peripheral

Art Unit: 1797

edge (14) of the filter element (12). Figures 3 and 4 illustrate the step of locating the filter element (12) in a mold unit (26), which is made up of an upper and lower mold half (28, 30 respectively). As shown in figure 4, the mold unit seals against peripheral regions of the front and rear faces of the filter element. Also as shown in figure 4, the mold unit (26) together with the peripheral edge (14) and marginal regions of the front and rear faces of the filter element (12) defines a mold cavity (42). Both the top and bottom mold halves (28, 30) include tapering projections (48, 50 respectively) that bite into the peripheral regions of the front and rear faces so as to cause a depression therein. Figure 5 shows the step of filling the mold cavity (42) with a solidifiable liquid resin composition. As discussed in page 10 lines 17 - 25, after the liquid synthetic material, or resin, has filled the mold cavity (42), as shown in figure 6, the liquid resin is converted to a solid and the mold halves are moved apart, thus producing a solid frame (16) around the filter element (12), as shown in figure 7, and the filter unit (10), as shown in figure 1.

In regard to claim 9, as disclosed in page 7 lines 5 - 15, the filter element (12) of Beck comprises three layers. The first layer is a filtering non-woven layer (18) that can be considered a pad as broadly recited in the claim. The second layer is an activated carbon layer (20).

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Art Unit: 1797

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beck in view of US Patent No. 4,187,182 to Rosenberg.

Beck is discussed above in section 3. Beck discloses using a solidifiable liquid polymer resin, or thermoplastic, but does not disclose using a curable resin as an alternate to the liquefied polymer to form the frame. Rosenberg discloses a box filter with two housing parts (2, 3) that form the frame of the filter. As disclosed in column 5 lines 36 - 44, thermoplastics and curable resins can both be equivalently used to form the housing parts.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to substitute a curable resin for the thermoplastic material of Beck as suggested by Rosenberg since both a curable resin and a thermoplastic material are well known means in the art to form molded structural parts for filters.

6. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beck in view of US Patent No. 6,579,250 to Doherty.

Beck is discussed above in section 3. Beck mainly deals with the method of forming a filter frame. Beck does not disclose the filter element to be a HEPA filter element or to comprise ULPA or ASHRAE media. One of ordinary skill in the art, however, would reasonably expect that method of Beck could be used with any suitable pleated filter media depending upon the desired type of filtering needed. Doherty teaches a pleated non-woven filtration media that predictably could be used in the process of Beck. As discussed in column 1 lines 19 - 25, pleated HEPA, ULPA, and

Art Unit: 1797

ASHRAE filters are well known filters in the art for removing particles smaller than 10 microns.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Beck to include a HEPA, ULPA, or ASHREA filter element as suggested by Doherty, given the application of the filter required removing 10 micron or smaller particles.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT A. CLEMENTE whose telephone number is (571)272-1476. The examiner can normally be reached on M-F, 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1797

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RAC

/Frank M. Lawrence/

Primary Examiner, Art Unit 1797